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ABSTRACT

At Hagerstown Junior College (HJC), a project was developed to integrate the college's need for increased enrollment with community college faculty development and industry's need for worker retraining. The project involved agreements between HJC and Mack Trucks, the largest employer in the college's service area. The first program developed, the HJC-Mack instructor exchange program, addressed the need to keep faculty updated on new technology and processes and to contribute to upgrading the skills of Mack employees. Within this exchange program, three Mack employees taught courses at HJC and college personnel presented 13 training activities for Mack employees ranging in length from 6 to 20 hours. The second program, the HJC-Mack personnel assignment program, involved HJC personnel in reviewing the content of Mack's training program and the qualifications of the trainers providing the instruction. Under this arrangement, the Mack trainers submit the content of their programs and their credentials to the college for assessment. If a training activity has sufficient content for the awarding of credit and the trainer meets college teaching standards the workers taking the course can receive college credit. These programs benefit the college by checking enrollment decline, increasing college personnel's familiarity with industrial training and its applications, and by making faculty aware of the relevance of new technology in the classroom. The HJC-Mack agreements are appended. (HB)

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**A MARRIAGE OF NECESSITY:  
Professional Development through Business/Industry Articulation**

**Roundtable 56**

**65th Annual Convention  
American Association of Community and Junior Colleges**

**San Diego, California  
April 16, 1985**

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## Introduction

At the mid-point of the 1980's, Dickens' classic statement captures the essence of the dilemma facing American community colleges: "It was the best of times, it was the worst of times, . . . it was the spring of hope, it was the winter of despair, . . ."<sup>1</sup> Three issues will determine which of Dickens' scenarios will take place: enrollment growth or decline, faculty retraining, and technology upgrading in the business and industrial sector.

Enrollment is declining. A survey conducted by the American Council for Policy Analysis and Research reveals that total headcount in two-year colleges declined by 1.1% from the fall of 1983 to the fall of 1984.<sup>2</sup> This decline occurring in an uncertain economy has restricted greatly the job market for community college faculty and staff who no longer find their assignments exciting and satisfying. Concurrently, there is a revolution emerging in American business and industry.

The remaining years of the twentieth century have been characterized as a "time of unprecedented change." Technological innovation and foreign competition are forcing the adoption of new manufacturing processes and an over-all transition from basic production to information exchange and the provision of services.<sup>3</sup> When this change is compared with population dynamics, an interesting situation emerges. The children of the post-World War II "baby boom" are entering their forties. Most of them are already in the labor force; far fewer people will be entering it for the remainder of the century. Those already employed must be prepared for the "high tech" information and service economy of the future. The result is an adult retraining opportunity of immense proportions.<sup>4</sup> Is it possible to integrate the need for increased enrollment, community college faculty development, and industry's requirement for retraining? A model jointly developed

by Hagerstown Junior College (HJC) and Mack Trucks, Inc., which is entering its second year, suggests that not only is it possible but also profitable for both parties.

Return to Industry: The HJC Experience

Most two-year colleges experienced phenomenal growth from the mid-60's to the early 70's. Numerous new faculty and staff jobs were created. Nearly twenty years later, many of the faculty and staff hired to fill these positions still occupy them. HJC is no exception. The restricted employment market referred to above limits the ability of these individuals to find new, challenging opportunities within or outside of education.

Concurrently, technological change is occurring at an ever-increasing rate. Miller and Haenni state: "The time lag between technological innovation and commercial application used to be 10 to 15 years and is now three to four years."<sup>5</sup> Colleges must be sure that their faculty are technologically competent--preparing students for the employment market of today and tomorrow.

Seven years ago, HJC initiated a "Return to Industry" (RTI) program using Appalachian Regional Commission funds. For five years, faculty teaching in the college's occupational programs were encouraged to return to the business or industry of their original expertise to upgrade skills and develop new knowledge. By the completion of the grant, 85% of the eligible faculty had taken advantage of the opportunity.<sup>6</sup>

Although the project ended, the need for technological upgrading continues. Faculty and staff need to modernize their skills and knowledge. Further, new opportunities restore excitement and satisfaction to what has become a process of performing essentially the same job in the same location. A new strategy was required.

### The HJC - Mack Nexus

The new strategy was a creative modification of the existing process. While the ARC model was ideal, it was not the only way to provide skill upgrading. College faculty and staff agreed to reduce the length of the RTI experience, allocate a percentage of existing institutional development funds to the program, and use a vocational development allocation for RTI.<sup>7</sup> Had the process stopped there the college would have maintained a modest, yet successful program. Nothing would have occurred to bolster enrollment or expand RTI. A local industry's intervention provided new direction.

The largest employer in the HJC service area is the Engine and Transmission Division of Mack Trucks, Inc. They are experiencing the rate of technological change characteristic of many heavy industry/manufacturing concerns. Robotics, CAD/CAM, and sophisticated quality assurance procedures are being introduced. The Chairman of the Board of Mack Trucks, Inc., Alfred W. Pelletier, commented: "Wrenching change, especially affecting younger workers, is the price exacted by years of poor planning and living beyond our means."<sup>8</sup> He suggests that "the existing worker in the retraining mode is probably much closer to the sharp edge of capabilities, and will require a shorter and more focused training period."<sup>9</sup> He presents a solution to the problem of retraining the industrial workforce: "We must encourage a regular exchange of personnel between education and industry on a short duration basis to ensure relevance to current and anticipated needs."<sup>10</sup> Mr. Pelletier's prescription was put to use in Hagerstown.

Two programs have emerged in response to the Pelletier prescription. The first, instructor exchange, addresses faculty retraining and technology upgrading.

The second, personnel assignment, expands technology upgrading and increases college enrollment. Each will be described in detail.

Mack-Hagerstown had participated in HJC's RTI program. Successful "returns" by several faculty resulted in the understanding that educators were willing to learn from industry and that they had skills to contribute. Mack's Section Manager of Personnel Training and Development was aware of an equally significant, long-standing procedure. The college employed Mack personnel as part-time faculty. These individuals brought the "real world of industry" into college classrooms. The Section Manager recognized the potential inherent in linking these unrelated procedures.

In the fall of 1983, the Section Manager met with the College's Dean of Instruction to explore the possibility of integrating RTI and the use of Mack personnel as part-time instructors. The result was an instructor exchange program.

The process is simple: Mack assigns an employee to teach a course for HJC as a part of the individual's regular job. The college screens the person using the normal procedures used for all part-time faculty. A salary for teaching the course is determined based upon the individual's education and experience. The amount is put in escrow to be drawn upon by Mack to employ HJC faculty and staff to conduct retraining for Mack hourly and management employees. HJC personnel are paid at the hourly overload rate established by the college. A pilot application of the exchange program was implemented during the college's spring 1984 semester.

HJC - Mack Instructor Exchange Program

The pilot exchange was quite successful. Mack's Manager of Industrial Engineering taught a marketing course. Along with his personal expertise, he brought other industry resources to the classroom. Students reacted favorably to the "real world" environment created by the exchange.

The first HJC faculty member selected to conduct in-plant training was a psychologist with stress management expertise. His presentation was attended by first-line supervisors. These individuals found the material useful in coping with the stress resulting from the technological change occurring at Mack.

After a careful assessment of the value of the exchange process, Mack and HJC entered into a formal agreement (Appendix A). Key elements of the agreement include the provision of training by college faculty and staff for hourly and management personnel (4D). Also, Mack agreed to endeavor to provide outside-of-class technological upgrading opportunities for college personnel (4G). An exciting dimension of this provision is college participation in Mack sponsored high technology training seminars. The presentation of a geometric design and tolerancing session attended by college faculty resulted in upgrading of the college's mechanical engineering technology program. A statistically-based quality control program will provide growth opportunity for both mathematics and engineering faculty. Finally, a letter of understanding was developed which is used to specify responsibilities between the participants (Exhibit A).

The agreement has been in effect for two semesters. Three Mack employees have taught for the college. In return, college personnel have presented thirteen training activities for Mack employees ranging in length from six to twenty hours.

Participants included hourly line and office workers, first-line, mid- and senior management (Appendix B). Evaluations have been uniformly positive.

Future plans include the repeat of several popular sessions, the delivery of new activities and a joint project to prepare a quality control seminar for all hourly line employees. College faculty and staff assess the experience as valuable upgrading of teaching skills as well as a stimulating change of pace. The interaction between college and company emanating from the exchange program produced a second unique opportunity.

#### HJC - Mack Personnel Assignment Program

A significant statistic is the size of the training budgets of American business and industry. McKenzie reports that they "spend an estimated \$60 billion annually on employee training. A large percentage of that amount is spent to upgrade employees basic skills."<sup>11</sup> Mack Trucks, Inc. is quite representative; they offer a comprehensive program integrated with their technology upgrading plan. A synergistic outcome of the HJC-Mack interaction was the college's awareness of the quality and comprehensiveness of Mack training.

As a part of the personnel exchange program, Mack's Section Manager of Personnel Training and Development requested that college personnel review the content of Mack's training program and the qualifications of the trainers providing the instruction. Two division chairpersons, three program heads, and the dean of instruction reviewed components of the program. The outcome was a process of awarding college credit for elements of the program. Personnel from both organizations designed the procedures to take advantage of the opportunity.

The personnel assignment program integrates industrial training and college credit education. Mack trainers submit the content of their programs and their credentials to the college for assessment. If a training activity is found to have sufficient content for the awarding of credit and the trainer meets college teaching standards, a salary for the training is determined based on the individual's education and experience. Since the training is done "on company time," the salary is used to pay tuition and fees for those employees enrolled and interested in credit. Trainers must agree to keep records, conduct assessments, and submit grades to the college. Credits earned in this manner are used as general electives in selected college certificate and associate degree programs (Appendix C). Mack workers who might not enroll in college courses "cold turkey" use this controlled entry to develop confidence. The result has been increased enrollments from Mack employees.

<u>Course</u>	<u>Students</u>
Managing for Productivity	5
Statistical Process Control	28
Geometric Design & Tolerancing	9
Introduction to Statistics	7
Introduction to Numerical Control	3

What benefits accrue to the college from this process? First, these new students help check the enrollment decline being experienced by the college. Second, the review process conducted by college personnel increases their familiarity with industrial training and its potential for application in their area of expertise. Finally, through their interaction with Mack trainers, college personnel become aware of the relevance of the new technology to the

college classroom. The awareness improves on-campus teaching. The relationship between HJC and Mack Trucks suggests a model well suited to meeting the challenges of the future.

Conclusion: A Marriage of Necessity and Convenience?

Peter Drucker, management theorist, assesses the changes accompanying the fin de siècle. "Every generation needs a new revolution. . . . What we need is an entrepreneurial society in which innovation and entrepreneurship are normal, steady, and continuous. [They] are . . . needed in society as much as in the economy; in public-service institutions as much as business."<sup>12</sup> The integration of business and education to foster technological upgrading and personnel development, increase enrollment, and credential industrial training exemplifies the synergy necessary to develop Drucker's entrepreneurial society.

The HJC-Mack nexus is not an end in itself. Rather, it is a model designed to serve specific needs. One of higher education's primary functions is the integration and transmission of knowledge. The ability to adapt rapidly to the dynamics of the marketplace and to fundamental shifts in society's socioeconomic structure are both major challenges and opportunities in the last half of the 1980's. The interrelated issues of enrollment status, faculty retraining, and technology upgrading provide focus for both. Drucker suggests that "In an entrepreneurial society, individuals face a tremendous challenge - a challenge they need to exploit as an opportunity: the need for continuing learning and relearning. . . . individuals will have to learn new things well after they have become adults - and maybe more than once."<sup>13</sup> The ability to cause, conduct, and credential learning and relearning is the mission of the community college

**for the remainder of the century. What began as a marriage of necessity must evolve into one of convenience which will cause and contribute to the emergence of the entrepreneurial society. Community college willingness to interact with industry for mutual benefit will determine, as never before, which of Dickens' scenarios will prove true!**

## AGREEMENT

## APPENDIX A

### 1. PARTIES

The parties to this Agreement are Mack Trucks, Inc. ("Mack"), 1999 Pennsylvania Avenue, Hagerstown, Maryland 21740 and Hagerstown Junior College ("College") 751 Robinwood Drive, Hagerstown, Maryland 21740.

### 2. PURPOSE

The purpose of this Agreement is to provide the College with Mack employees to teach courses at the College in their fields of experience and expertise and to provide Mack with instructors from the College to conduct training classes or seminars in accordance with Mack's needs, as well as to provide those instructors from the College faculty with technological upgrade experiences through a process of return to industry.

### 3. TERM

This Agreement shall be in effect for a one (1) year period extending from January 1, 1985 to December 31, 1985. This Agreement will remain in effect from year to year unless either party terminates it by giving six (6) months prior written notice on or before June 30, 1985, or on or before June 30 of any year thereafter. Such notice must be sent by certified mail to the address set forth in Paragraph 1 above.

#### **4. SERVICES**

A. Mack will, whenever possible, attempt to provide at least one instructor each semester, not to exceed ninety (90) clock hours per semester, for a total of one hundred and eighty (180) clock hours for the academic year. All assignments of Mack personnel will be arranged through the Mack Personnel Training and Development Section.

B. Mack employees assigned to teach a course at the College will be compensated by Mack. All normal Mack benefits shall also apply to the Mack employees while at the College. The College shall not be responsible for providing the Mack employees with any compensation or benefits, but shall indemnify and hold Mack harmless from any claim, demand or cause of action relating to injuries sustained by the Mack employee while on the premises of the College, which result from the negligent acts or omissions or the willful misconduct of the College.

C. Mack employees assigned to teach a course at the College will comply with all College policies, regulations and procedures which are in effect or are promulgated during the term of their assignment. College policies, regulations and procedures will be fully explained and made available to the Mack employee in writing by the Office of Instruction of the College.

D. The College will assign faculty to Mack to provide selected training for its hourly and management employees. These instructors shall be compensated by the College. All

normal College benefits shall also apply to the College employees while at Mack. Mack shall be not responsible for providing the College employee with any compensation or benefits, but shall indemnify and hold the College harmless from any claim, demand or cause of action relating to injuries sustained by the College employee while on Mack premises, which result from the negligent acts or omissions or the willful misconduct of Mack.

E. Instructors assigned by the College to conduct training at Mack will comply with all Mack policies, regulations and procedures in effect or promulgated during the term of this Agreement. These policies, regulations and procedures will be fully explained to the College employee and shall be made available in writing to him by the Mack Personnel Training and Development Section.

F. A representative of the College will monitor the progress of the training program and act as a liaison with Mack personnel in planning and delivering the training under this Agreement.

G. Mack shall endeavor to provide an opportunity for technological upgrading outside the classroom experience for the instructors from the College faculty. This process will include on-the-job observation and discussion with Mack personnel.

H. The hours of instruction exchanged by the parties under this Agreement shall be on a "quid pro quo" basis. Mack and the College will each escrow any accumulated hours to

be used at a later date. On an annual basis, accumulated hours will be adjusted to zero at year end with no more than thirty (30) clock hours carrying over to the following year.

I. Program participants from both the College and Mack shall sign a Letter of Understanding, a copy of which is attached hereto as Exhibit "A", which provides that they understand that compensation shall be provided by their regular employer, and not by their host.

MACK TRUCKS, INC.

*Jack Losta*  
\_\_\_\_\_  
Name

VICE PRESIDENT AND GENERAL MANAGER

Title

November 30, 1984

Date

HAGERSTOWN JUNIOR COLLEGE

*Atlee C. Keyles*  
\_\_\_\_\_  
Name

President  
\_\_\_\_\_  
Title

*December 12, 1984*  
\_\_\_\_\_  
Date

**LETTER OF UNDERSTANDING**

I hereby acknowledge that I will be rendering teaching services at \_\_\_\_\_ as part of my duties as an employee of \_\_\_\_\_ and that I am not entitled to any compensation or benefits from \_\_\_\_\_ for said services.

\_\_\_\_\_  
**Witness**

\_\_\_\_\_  
**Employee**

\_\_\_\_\_  
**Date**

**EXHIBIT "A"**

## APPENDIX B

### INSTRUCTOR EXCHANGE PROGRAM MACK TRUCKS, INC. - HAGERSTOWN JUNIOR COLLEGE

<u>Program</u>	<u>Length</u>	<u>Type of Faculty</u>	<u>Audience</u>
Shop Mathematics	20 hours	Math faculty	Hourly line employees
Problem Solving	8 hours	Management faculty	First-level management
Written Communication	8 hours	English faculty	First-level management
Conversational French	16 hours	Language faculty	Senior management
The Manager and the Organization	12 hours	Administrators and management faculty	Mid-management
Motivation/Human Relations	6 hours	Health and Physical Education faculty	First-level management
Listening	6 hours	Communications faculty	First-level management
Performance Appraisal	6 hours	Management faculty	Section managers, section supervisors
Stress Management	6 hours	Psychology faculty	First-level management
Time Management	6 hours	Social Science faculty	Hourly office staff
French (Repeat)	3 hours	Language faculty	Senior management
Listening (Repeat)	6 hours	Communications faculty	First-level management
Copy Editing	6 hours	Communications faculty	Mid-management

## HAGERSTOWN JUNIOR COLLEGE/MACK TRUCKS, INC.

Personnel Assignment Program

The HJC-Mack Trucks Personnel Assignment Program is designed to provide credit for selected training programs offered by Mack Trucks to its employees and conducted by Mack personnel. The Personnel Training and Development Section Manager at Mack may submit to the Dean of Instruction at HJC any program which he thinks should be evaluated for college credit. Once it has been determined that the program will receive college credit, the following procedures will be used:

1. A Mack Trucks employee is assigned to conduct a Mack training program for which HJC has agreed to award college credit.
2. Mack Trucks pays the employee as part of regular salary or as overtime.
3. HJC places the individual on the college part-time faculty pay scale based on degrees earned and experience. The result is a per-credit-hour salary figure.
4. The salary generated by the Mack training program (placement salary x credit or credits generated) is used to pay student tuition and fees.
5. HJC regulations require that pay be assigned proportionally for enrollment of one to eleven; full pay is awarded for an enrollment of 12. The impact on tuition/fees is as follows: number of students divided by 12 times instructor's salary per credit hour.
6. There is no extra pay for enrollment beyond 12 students.
7. Mack Trucks may make up any difference between salary generated and tuition/fees needed in any of the following ways:
  - A. Student pays some or all of the difference
  - B. Mack Trucks pays some or all of the difference
  - C. Combination of A & B
  - D. Allocation of personnel exchange hours from escrow to personnel assignment course in the amount needed.
8. Mack Trucks or Mack students will be responsible for book(s) and materials costs.
9. HJC's Office of Instruction will keep Mack Trucks Office of Industrial Relations informed of the escrow balance for both Personnel Exchange and Personnel Assignment.

1/31/85

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